

ABSTRACT OF THE DISCLOSURE

A compiler and method of compiling provide enhanced performance by utilizing a skip list data structure to store various properties of a program at points of interest in the procedure, for example, the properties of the statements in each block in the control flow graph. A special procedure is used to initialize the skip list, prior to performing data flow analysis, to ensure that the skip list structure is not used in an inefficient manner as a result of initialization. Furthermore, special procedures are used to simultaneously scan and compare two skip lists as part of solving dataflow equations.